

Abstract

Modified thermostable DNA polymerases having enhanced efficiency for incorporating unconventional nucleotides such as those labeled with fluorescein family dyes are advantageous in many *in vitro* DNA synthesis applications. Such enzymes are particularly useful for use in chain termination nucleic acid sequencing protocols, as are native forms of such enzymes. Genes  
5 encoding the modified enzymes and methods for their production and use offer cost and efficiency advantages for DNA sequencing.